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From Triad to Dyad: A Case to Retire ICBMs

By

Brian K. Zoellner, Major, USAF

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Advisor: Mr. Allen Sexton

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The end of the Cold War has dramatically changed the international security environment, particularly in regards to the role of nuclear weapons and the relative effectiveness of deterrence against a wide range of potential enemies to the United States. Nuclear deterrence strategies grew out of an ever changing, but consistently bipolar environment during the Cold War. The post-Cold War environment retains the same threats, although somewhat diminished, but has also seen the rise of WMD threats from rogue nations and non-state actors. Theorists have put lots of thought into what future wars may look like and what role deterrence will play. However, they have put less thought into how the nuclear force structure of the United States should change other than to reduce the number of warheads. The United States can reduce the classic nuclear triad, consisting of intercontinental ballistic missiles (ICBMs), bombers, and sea launched ballistic missiles (SLBMs), to just two delivery systems without compromising national security or our ability to deter legacy threats. The United States no longer needs to maintain operational ICBMs in a post-Cold War security environment and getting rid of them may actually enhance national security.

Cold War deterrence strategies grew out of the post-World War II bipolar security environment. A “notable characteristic of the Cold War deterrence environment is that, despite allegations to the contrary, United States national security policy was designed to address one relationship, that between the United States and the Soviet Union.”¹ The United States initially enjoyed a nuclear monopoly which enabled it to offset the threat of massive Soviet conventional attack without fear of nuclear retaliation. This led to a national security strategy of containment of Soviet expansion. Once the Soviets developed its own nuclear warheads, the United States changed its policy to massive retaliation. US superiority in the number of nuclear weapons it possessed made this a viable strategy. As the number of Soviet weapons grew, the United States

shifted to a counterforce strategy known as flexible response. This strategy began to recognize the level of unacceptable civilian losses that would result from a nuclear war, and attempted to deter the use of Soviet weapons against civilian targets by announcing the US would use a counterforce strategy, in hopes that the Soviets would follow suit. This hope quickly seemed unrealistic as most envisioned any nuclear exchange growing into all out nuclear war. If one side began to gain a large advantage in open conflict, it was natural to assume the losing side would need to abandon the counterforce strategy and target cities to dissuade the winning side from continuing any advances. This belief led to the primary nuclear deterrence concept of mutual assured destruction (MAD), which hypothesized that any use of nuclear weapons would eventually escalate into the total devastation of both the United States and the Soviet Union. Both sides attempted to create survivable systems that could endure a first strike from the other nation. The Reagan administration even attempted to posture American nuclear forces to be able to “win” a nuclear war and reserved the right to use nuclear weapons in a first strike capacity. However, the utility of this idea was unlikely. The number of survivable Soviet nuclear weapons ensured a second strike capability. “Ironic as it may seem, the only relatively sane strategy for nuclear weapons is mutual assured destruction.”² In the Cold War security environment, nuclear weapons had “no military purpose other than deterrence.”³ Throughout all of this history, two concepts of deterrence remained constant. For nuclear deterrence to work, potential adversaries had to believe that the will and capability of the United States to use nuclear weapons were credible.

The classic triad (ICBMs, SLBMs, and bombers) developed in response to the need for credible capabilities. At the end of World War II, bombers were the only delivery vehicle available due to technological limitations. World War II proved to the United States that the

bomber could not always reliably reach its targets in contested airspace, which led to the development of ICBMs. ICBMs gave the United States a system that could reliably penetrate Soviet defenses. However, the Soviets could easily target ICBMs in their silos. The need for survivable systems that could retaliate after a Soviet first strike led to the development of SLBMs. Retaining bombers gave the United States a visible means of being able to forward deploy nuclear weapons. Bombers and SLBMs also created a delay capability in any nuclear response. Without this capability, the survivability of ICBMs would lock the United States into a “use or lose” mentality in response to a Soviet first strike. The United States would either have to retaliate immediately to a perceived attack or risk losing the ability to do so with ICBMs. The array of capabilities the classic triad provided allowed the United States to ensure the destruction of the Soviet Union under any conditions. The post-Cold War security environment has not eliminated the Russian threat all together, but has created a need to recognize the rise of threats such as rogue nations and non-state actors. Deterring these new threats with nuclear weapons is much more problematic than deterring the Soviets was during the Cold War.

So long as any other nation or organization possesses nuclear weapons or other weapons of mass destruction (WMD), the United States will need to deter the use of those weapons against the United States. Within this truth; however, the post-Cold War environment has changed significantly. The Center for Strategic and International Studies (CSIS) characterizes the environment this way:

“In today’s less threatening world, the role of (and the requirement for) nuclear weapons seems smaller, at least to US citizens and their European allies. The definition of what constitutes “unacceptable damage” changes as well in less threatening environments; US force structure planners no longer need to assume an ideologically committed adversary willing to risk nuclear Armageddon.”⁴

It is important to note that the old threats have not gone away, but the nature of those threats has lessened. The substantial change in deterrence theory results from the rise of rogue nations and non-state actors that may possess small quantities of nuclear weapons. As the saying goes, we aren't nearly as afraid of the person who has lots of nukes as we are with the person who has just one. The deterrence strategies, and hence the usefulness of the US arsenal of weapons, is considerably different for each of these potential enemies.

Nuclear tensions have certainly lessened between the United States and Russia, but the United States still needs classic deterrence to hedge against deterioration in the current status quo. "The violence-suppressive effect of nuclear weapons has not receded with the end of the Cold War."⁵ Russia suffered huge reductions in its conventional forces following the collapse of the Soviet Union. Meanwhile, Russia still has a desire to maintain major world power status. They see nuclear weapons as a means of maintaining this status while deterring both nuclear and conventional attacks against Russia.⁶ Russia's willingness to continue reducing the number of warheads in concert with the United States since the end of the Cold War seems to indicate a defensive nuclear posture. However, it continues to modernize its nuclear capabilities and its "future political direction remains uncertain."⁷ Keep in mind that Russia sees the current security environment differently as well. US hegemony, an expanding NATO, and "suspicions that the real ambition of the West is to deny Russia the status of even one among several great powers" suggests Russia will maintain a robust nuclear force.⁸ These conditions ensure that classic deterrence theory will suffice against Russia. However, these conditions don't necessarily mean that the United States must maintain all elements of the classic triad to ensure adequate deterrence. Lewis Dunn suggests a new strategy of mutual strategic reassurance. "At the level of high politics, mutual strategic reassurance requires a practical commitment on the

parts of both Washington and Moscow to take actions to enhance security cooperation and lessen residual suspicions.”⁹ Eliminating ICBMs could aid in this endeavor by reducing suspicions without diminishing an American ability to deter Russian aggression. Deterring other post-Cold War threats is significantly more difficult.

The proliferation of nuclear weapons as well as other WMD to rogue nations and potentially to non-state actors such as Al Qaeda presents new difficulties to the deterrence puzzle. “The primary national security challenge now facing the United States is the nexus of violent extremists and regional states of concern that have, or seek to attain, weapons of mass destruction.”¹⁰ These threats seek WMD as a means of equalizing their strength with that of a greater conventional military power.¹¹ However, these non-major powers don’t realistically threaten the existence of the United States like the Soviet Union’s arsenal. A large number of weapons is required to do that, but is difficult to attain. If a rogue nation did so, the United States could simply deter them in the same fashion as Russia. The threat of small numbers of weapons or a singular weapon is different though.

Since rogue nations don’t realistically threaten the existence of the United States, a WMD gives them the ability to deter US action against them because this reality raises the nuclear “acceptable damage” threshold. In the meantime, the US arsenal is not a deterrent to nations to prevent them from developing small numbers of weapons. North Korea’s successful effort to develop nuclear weapons highlights this point. In fact, the United States has only undertaken overt military action once to stop the development of WMD, which was in Iraq. The dismal failure in intelligence in that case has made it unlikely that the United States will undertake any similar actions in the future. Ongoing tensions with Iran, who is likely to develop a nuclear weapon soon, may prove this assumption. As such, the United States will need to deter these

nations from actually using these weapons. The threat of massive retaliation may again be valid as it was when a large disparity in the number of weapons existed between the United States and Soviet Union in the Cold War. ICBMs; however, are not needed to provide that threat of massive retaliation. The threat from SLBMs and bombers is more than adequate.

Non-state actors present an entirely different challenge. They are in effect immune to the threat of an American nuclear arsenal. Even if the United States could attribute a WMD attack to a particular group, it would not be able to retaliate in kind. The dispersed nature of these organizations, who imbed themselves inside of a nation-state who may or may not be directly aiding them, creates a situation in which the United States cannot target them with a retaliatory nuclear strike. In the case of terrorist organizations, this coupled with an extreme ideological devotion means the United States cannot deter them from attacking. “Western democratic states are subject to radically different constraints—political, legal and ethical—from those of non-state actors and these will shape significantly the types of messages that Western states can credibly and legitimately send as part of any deterrence strategy.”¹² It is unlikely that the international community would tolerate an American nuclear retaliatory strike within the borders of a country that was not directly responsible for the attack. Simply providing safe haven does not cross the nuclear threshold, especially when considering the vast conventional capabilities available to the United States for retaliation. Given the realities of the current security environment, it is only logical for the United States to reduce its nuclear arsenal both in terms of the number of warheads and the types of delivery vehicles.

In the 2002 Nuclear Posture Review, the DoD defined a new triad which seems to continue the US military’s trend towards seeking capabilities, not specific platforms. In this triad, all nuclear delivery vehicles are lumped into one corner under the heading of non-nuclear and

nuclear strike capabilities. “The United States would no longer plan, size, or shape its forces vis-à-vis Russia, enabling greater stockpile reductions.”¹³ If the focus is truly on capabilities, one must ask if the classic triad delivery systems still have adequate value added in terms of capabilities to justify their continued use. From this perspective, considering the changed security environment, the redundancy of these systems is excessive. Added to this, the last Nuclear Posture Review listed a new strategic framework which included the goals of “assuring allies and friends, dissuading future military competition, deterring threats and coercion against US interests, and if deterrence fails, decisively defeating any adversary.”¹⁴ The United States could retire ICBMs and still meet all these goals while actually enhancing the second goal.

ICBMs are the obvious choice of delivery vehicle to eliminate when you consider their inherent lack of flexibility. They are built for and capable of accomplishing but one mission, the delivery of high-yield nuclear warheads. They certainly could be fitted with conventional warheads, but the missile would still be unusable. Any operational launch of an ICBM, no matter how much we tell the world it is conventional, would be very provocative towards major powers such as China and Russia. Also noteworthy is the fact that ICBMs must overfly other nations to get to their targets. This is not necessarily true for bombers and SLBMs. Or, at the very least, The United States can be more selective about the countries they overfly. The one advantage ICBMs offer is response time. They can strike any target in the world in 30 minutes. The United States does not need this capability though. Assuming all forces are on alert and the worst case scenario, a massive Russian counterforce first strike, a CSIS study showed that only 10-20 percent of ICBMs, 100 percent of SLBMs, and 75 percent of bombers would survive.¹⁵ This leaves more than adequate forces to ensure destruction of any enemy. “Under conditions of generated alert and launch warning the composition of forces matters little.”¹⁶ The CSIS study

also noted 100 percent of any of the delivery vehicles have sufficient range to strike any target in the world.¹⁷ All this means that SLBMs and bombers have the necessary capabilities by themselves.

In contrast to ICBMs, submarines and bombers offer greater flexibility. SLBM launching submarines can conduct ISR missions while being vastly more survivable than ICBMs. However, like ICBMs, they do not make a very good visible indicator of increasing tensions since they are always in a generated posture when at sea. Bombers offer a good compliment to SLBMs. The United States can easily employ bombers in a conventional or nuclear role, making them the most versatile platform. They are not as survivable as SLBMs and do not offer the same abilities to penetrate enemy defenses, but serve as a great visual indication of escalating tensions. Bombers do not sit alert on a daily basis. Generating them to an alert status sends a clear and easily recognizable message to any potential adversary. The capabilities and limitations of these platforms suggest that the United States needs at least a dyad of SLBMs and bombers for adequate defense.

The post-Cold War security environment presents new challenges and opportunities in regards to deterrence strategies and the American nuclear arsenal. The diminished threat from major powers and the rise of threats from rogue nations and non-state actors, who are undeterred anyway, have made ICBMs a redundancy that is unneeded. Retiring ICBMs garners obvious fiscal savings without compromising the security of the United States. Their retirement may even open doors to better relations and a continued de-escalation of tensions with major nuclear powers. Now is the time to replace the classic nuclear triad with a robust dyad.

Notes

1. Gwendolyn M. Hall, John T. Cappello, and Stephen P. Lambert, *A Post-Cold War Nuclear Strategy Model*, INSS Occasional Paper 20 (USAF Academy, CO: Institute for National Security Studies, 1998), 14.
2. Louis Rene Beres, *Myths and Realities: US Nuclear Strategy*, Occasional Paper 32 (Muscatine, IA: The Stanley Foundation, 1982), 6.
3. Ibid, 6.
4. Michele A. Flournoy and Clark A. Murdock, *Revitalizing the U.S. Nuclear Deterrent*, Center for Strategic and International Studies (Washington , D.C.: The CSIS Press, 2002), 7.
5. Clark A. Murdock, *The Department of Defense and the Nuclear Mission in the 21st Century*, A Beyond Goldwater-Nichols Phase 4 Report (Washington, D.C.: The CSIS Press, 2008), 1.
6. Hall, *A Post-Cold War Nuclear Strategy Model*, 32-33.
7. US Department of Energy and US Department of Defense, *National Security and Nuclear Weapons in the 21st Century* (Washington, D.C., September 2008), 5.
8. Lewis A. Dunn, "Rethinking Deterrence: A New Logic to Meet Twenty-First Century Challenges," in *Deterrence and Nuclear Proliferation in the Twenty-First Century*, ed. Stephen J. Cimbala (Westport, CT: Praeger Publishers, 2001), 25.
9. Ibid, 26.
10. DoE and DoD, *Security and Nuclear Weapons in the 21st Century*, 1.
11. Murdock, *The Department of Defense and the Nuclear Mission in the 21st Century*, 2.
12. Wyn Q. Bowen, "Deterrence and Asymmetry: Non-State Actors and Mass Casualty Terrorism," in *Deterrence and the New Global Security Environment*, ed. Ian R. Kenyon and John Simpson (New York, NY: Routledge, 2006), 59.
13. Murdock, *The Department of Defense and the Nuclear Mission in the 21st Century*, 19.
14. Flournoy and Murdock, *DoD and the Nuclear Mission*, 8.
15. Ibid, 36.
16. Stephen J. Cimbala, "Triage of Triads: Does the United States Really Need Three Strategic-Retaliatory Forces?," in *Deterrence and Nuclear Proliferation in the Twenty-First Century*, ed. Stephen J. Cimbala (Westport, CT: Praeger Publishers, 2001), 125.
17. Flournoy and Murdock, *DoD and the Nuclear Mission*, 37.

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